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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,561	02/29/2000	NOBUAKI HASHIMOTO	105030	8576

7590 02/11/2002

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EXAMINER

CRUZ, LOURDES C

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 02/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/486,561

Applicant(s)

HASHIMOTO, NOBUAKI

Examiner

Lourdes C. Cruz

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-7 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on 29 May 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 14-15 are objected to because of the following informalities: The claims are improperly drafted. The dependency of the claims should be stated at the preamble of the claim. Correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-12, 14-18 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8-12, 14-18 and 20 recite, "lateral". This term lacks antecedent basis in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 8-11, 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitsutoshi et al. (JP 10084014).

Regarding claims 8, and 18-20 Mitsutoshi discloses a device comprising a chip (See figures 1 and 8) having electrodes 52, a substrate 11 having an interconnect pattern 12; and an adhesive 21; wherein said electrodes and said interconnect pattern are electrically connected; and wherein said adhesive has a first portion interposed between a surface of said substrate on which said interconnect pattern is formed and a surface of said chip on which the electrodes are formed, so as to cover all of a lateral surface of said semiconductor chip; and a second portion (Portion of the adhesive not beneath the chip) having a thickness greater than said first portion.

Mitsutoshi also discloses an adhesive with conductive particles 22 (**Claim 10**) substantially covering the lateral surface of the chip (**Claim 9**). See that the prior art's adhesive covers the interconnect pattern entirely (**Claim 11**).

Mitsutoshi also teaches:

- At least part of said second portion having a thickness substantially the same as the chip (**Claim 16**)
- Each of the electrodes including a bump 32, and wherein a part of said second portion contacts the lateral surface of the chip but not a lateral surface [any surface] of the bump (**Claim 17**)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim **12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsutoshi in view of Canning et al. (US 5783465).

Mitsutoshi fails to teach a shading material. See that Canning teaches a shading material "pigment" (Col. 5, lines 14+). It would be obvious to combine the teachings of Canning to the teachings of Mitsutoshi in order to provide shielding against reflected light.

Claims **14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsutoshi.

Regarding claims **14 and 15** official notice is taken that is well known to use a PCB/PWB as the circuit board. It would have been obvious to combine the invention of Mitsutoshi with the well-known invention because it would provide a circuit board.

Response to Arguments


Applicant's arguments filed 11-14-01 have been fully considered but they moot in view of the new rejection above.

Conclusion

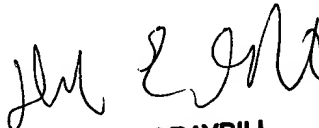
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lourdes C. Cruz whose telephone number is 703-306-5691. The examiner can normally be reached on M-F 8:00- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Lourdes Cruz
February 7, 2002

Lourdes C. Cruz
Examiner
Art Unit 2815


DAVID E. GRAYBILL
PRIMARY EXAMINER